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REMARKS

This is in response to the Office Action of 03 March 2004. Claims 1-2 and 4-10 are pending in the application, and Claims 1-2 and 4-10 have been rejected.

By this amendment, the Title has been amended; Claims 1-2 and 4-10 have been amended, arguments traversing the rejections under 35 USC 103(a) are presented; and new Claims 11-15 have been added.

No new matter has been added.

In view of the remarks below, Applicant respectfully requests reconsideration and further examination.

About The Invention

The present invention relates generally to reducing or eliminating errors introduced to a transmitted signal by a communications channel. More particularly, the present invention relates to correcting errors in a received signal beyond the capacity of any error coding included in the transmitted signal by recognizing corrupted parts of a speech signal and replacing those corrupted parts with elements synthesized from a stored set of predetermined speech elements.

Comment on Examiner's Response to Applicant's Previously Filed Arguments

The Examiner states that "there is no such teaching 'speech element is different than the data in the received data frames' in the application's disclosure."

Applicant respectfully disagrees with the Examiner's statement that the foregoing is not disclosed by the application. In fact, the application discloses that a frame of speech data is received, and if, for example, a first and a second portion are recognized through a dictionary lookup of stored speech elements, while a third portion, intermediated the first and second portions, does not match the dictionary lookup, then that non-matching portion is considered to be corrupted and is replaced. Clearly, in such a case, the stored speech element is different than the data in the received data frames. Obviously, if the stored data and the received data were the same, there would be no reason to replace any portion of the received data; and replacing the non-matching corrupted data is a prime function of the present inv ntion as disclosed in the application. Se page 4, lines 1-10, and page 5, lines

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9-21; and Figs. 1, 2A, 2B, 2C, and 3.

In view of the foregoing, Applicant respectfully asserts that the Examiner has wrongly concluded that the application does not disclose stored speech elements being different from received data, as is recited in the Claims.

Non-Narrowing Amendments of Claims 1 and 5-7

Claims 1 and 5-7 have been amended in a non-narrowing manner to delete the hyphens that preceded each of the subparagraphs of those Claims. No change in the scope of these Claims is intended by removing those hyphens.

Objection to Title

The Examiner has required a new title that is clearly indicative of the invention to which the Claims are directed.

By this amendment, the previous title has been deleted, and a new Title has been substituted therefor. The new Title reads: "Method and Apparatus For Reducing Channel Induced Errors In Speech Signals".

Applicant respectfully submits that this new Title complies with the Examiner's requirement for a descriptive title that is indicative of the invention to which the Claims are directed. Applicant further submits that, in view of the amendment to the Title, this objection has been overcome.

Objections to the Claims

The Examiner has objected to Claims 2, 4, and 8-10 because of various informalities. With respect to Claims 2, and 8-10, the Examiner has requested that the first word in each preamble be change to the word "The". With respect to Claim 4, the Examiner has requested rewording to a more common dependent Claim language format.

By this amendment, Claims 2 and 8-10 have been amended in a non-narrowing manner so that each of the respective preambles of these dependent Claims b gins with the word "The". Additionally Claim 4 has been amended

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substantially as suggested by th Examiner so that it appears in a more common form for dependent Claims.

In view of these amendments, Applicant respectfully submits that the objections to the Claims have been overcome.

Rejections under 35 USC 103(a)

Claims 1-2 and 4-10 have been rejected under 35 USC 103(a), as being unpatentable over Jarvinen, et al., (US Patent 5,526,366).

For at least the reasons set forth below, Applicant respectfully traverses the rejections of Claims 1-2 and 4-10 under 35 USC 103(a) and requests that these rejections be withdrawn.

Firstly, Applicant's Claims clearly recite the replacement of the "corrupted parts" of the received data frames. There is no such disclosure by Jarvinen, et al., which only disclose replacement of the erroneous frames, not just of the corrupted parts.

Secondly, Applicant's Claims clearly recite that the replacement of the corrupted parts is accomplished with speech data synthesized from the stored predetermined set of speech elements. There is no such disclosure by Jarvinen, et al., which only disclose replacing an entire erroneous frame with data that is either the same as, or derived from, a previously received non-erroneous frame.

Thirdly, the Examiner has incorrectly characterized the claimed storage of the predetermined set of speech elements as being the same as a temporary storage that would be used in general for the processing of a digitized speech signal. There is no basis for the Examiner's analogy between such a generalized storage facility, and Applicant's recited storage of a predetermined set of speech elements. The stored predetermined set of speech elements is not a storage space for the received data, and not a storage space to act as a scratchpad memory for processing of the received data. The stored predetermined speech elements, as recited in the Claims, are a predetermined source of information for synthesizing replacement data for the corrupted parts of the received speech signal. There is no such disclosure, suggestion, or motivation provid by Jarvinen, et al.

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In view of the foregoing, Applicant respectfully submits that the rejections of Claims 1-2 and 4-10 under 35 USC 103(a) are improper and should be withdrawn.

New Claims 11-15

New dependent Claims 11-14 recite the predetermined set of speech elements comprising a dictionary, that the vocal recognition means provides a probability of recognizing a received element among the elements of the dictionary. Support for these Claims can be found in the specification at page 4, lines 1-8, and page 5, lines 1-9.

New dependent Claim 15, further recites determining whether to replace a received element based on the probability of recognizing the received element among the elements of the dictionary. Support for this Claim can be found in the specification at page 5, lines 1-9.
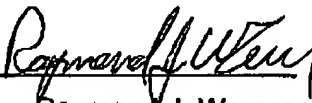
Jarvinen, et al., does not disclose the stored set of speech elements, and so also does not disclose the stored set comprising a dictionary, nor providing a probability of recognizing a received element among the stored elements of the dictionary, nor determining whether to replace a corrupted part, based on the probability of finding the element in the dictionary.

Conclusion

All of the rejections in the Office Action of 03 March 2004 have been responded to, and Applicant respectfully submits that the pending Claims 1-2 and 4-15 are in condition for allowance.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

By _Raymond J. Werner_

Dated: 07 May 2004
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